



PATENT

IPW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Milan R. Kokta, et al.

Title: MATERIALS FOR USE IN OPTICAL AND OPTOELECTRONIC APPLICATIONS

Application No.: 10/669,145 Filed: September 23, 2003

Examiner: James Vannucci Group Art Unit: 2828

Atty. Docket No.: 1035-BI3918-CIP

MS AMENDMENT  
COMMISSIONER FOR PATENTS  
PO Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT TRANSMITTAL**

Dear Sir:

Pursuant to 37 C.F.R. § 1.56, § 1.97 and § 1.98, the undersigned brings the patents, publications, applications or other information identified in the attached:

Form(s) PTO/SB/08A and/or PTO/SB/08B or PTO/1449  
 Other: n/a

to the Examiner's attention in the above-identified application. Citation of such information shall not be construed as:

1. an admission that the information necessarily is, or corresponds to, prior art with respect to the instant invention;
2. a representation that a search has been made, other than as described below; or
3. an admission that the information cited herein is, or is considered to be, material to patentability as defined in § 1.56(b).

For each item of information listed that is not in the English language, the undersigned has provided a concise explanation of the relevance, such as through (i) an English language abstract, (ii) an English language equivalent application, (iii) reference to discussion in the application, or (iv) if cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action that

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as either First Class Mail or Express Mail, in an envelope addressed to the Commissioner for Patents on 11-2-05.

Elise K. Dougherty  
Typed or Printed Name

E.K. Dougherty  
Signature

indicates the degree of relevance found by the foreign office.

STATEMENT UNDER 37 C.F.R. § 1.704(d)

If the above-identified application is an original application filed on or after May 29, 2000:

- each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of this Information Disclosure Statement.

FEES DUE

This Information Disclosure Statement is being filed:

- within three months of the filing date of a national application or within three months of entry of the national stage as set forth in § 1.491 in an international application. Therefore, no fee is required.
- before the mailing date of a first Office action on the merits or before the mailing date of a first Office action after the filing of a request for continued examination under § 1.114. Therefore, no fee is believed required.
- during the period specified in § 1.97(c). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application not more than three months prior to the filing of this Information Disclosure Statement.
- during the period specified in § 1.97(c). Accordingly, the fee set forth in § 1.17(p) is required and provided as shown on the attached Fee Transmittal.
- during the period specified in § 1.97(d). Accordingly, the fee set forth in § 1.17(p) is required and provided as shown on the attached Fee Transmittal. Additionally, each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application not more than three months prior to the filing of this Information Disclosure Statement.

Should any PTO fees be necessary for entry of this Information Disclosure Statement, the undersigned hereby authorizes the Commissioner to charge Deposit Account 50-2469.

11/2/05  
Date

Respectfully submitted,

  
Jeffrey S. Abel, Reg. No. 36,079

Attorney for Applicant(s)

TOLER, LARSON & ABEL, L.L.P.

5000 Plaza On The Lake, Suite 265

Austin, Texas 78746

(512) 327-5515 (phone)

(512) 327-5452 (fax)

### LIST OF RELATED APPLICATIONS

| <u>Application No.</u> | <u>Filing Date</u> | <u>Applicant(s)</u> | <u>Docket No.</u> |
|------------------------|--------------------|---------------------|-------------------|
| 11/065,397             | 02/24/05           | Tanikella, et al.   | 1075-BI4345       |



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Sheet 1 of 13

|                        |                 |
|------------------------|-----------------|
| Application Number     | 10/669,145      |
| Filing Date            | 09/23/2003      |
| First Named Inventor   | Milan R. Kokta  |
| Art Unit               | 2828            |
| Examiner Name          | James Vannucci  |
| Attorney Docket Number | 1075-BI3918-CIP |

**U. S. PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Document Number                                   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|--------------------|-----------------------|---|--------------------------------|--|---|
|                    |                       | Number-Kind Code <sup>2</sup> ( <i>if known</i> ) |                                |  |   |
| A1                 | US- 3,753,775         |   | 08/21/1973                     | Robinson et al.                                    |   |
| B1                 | US- 3,964,942         |   | 06/22/1976                     | Berkenblit et al.                                  |   |
| C1                 | US- 4,649,070         |   | 03/10/1987                     | Kondo et al.                                       |   |
| D1                 | US- 4,657,754         |   | 04/14/1987                     | Bauer et al.                                       |   |
| E1                 | US- 5,643,044         |   | 07/01/1997                     | Lund   |   |
| F1                 | US- 5,742,026         |   | 04/21/1998                     | Dickinson, Jr. et al.                              |   |
| G1                 | US- 5,989,301         |   | 11/23/1999                     | Laconto, Sr. et al.                                |   |
| H1                 | US- 6,048,577         |   | 04/11/2000                     | Garg   |   |
| I1                 | US- 6,238,450 B1      |   | 05/29/2001                     | Garg et al.  |   |
| J1                 | US- 6,258,137 B1      |   | 07/10/2001                     | Garg et al.  |   |
| K1                 | US- 6,265,089 B1      |   | 07/24/2001                     | Fatemi et al.                                      |   |
| L1                 | US- 6,364,920 B1      |   | 04/02/2002                     | Garg et al.  |   |
| M1                 | US- 6,391,072 B1      |   | 05/21/2002                     | Garg   |   |
| N1                 | US- 6,406,769 B1      |   | 06/18/2002                     | Delabre  |   |
| O1                 | US- 6,418,921 B1      |   | 07/16/2002                     | Schmid et al.                                      |   |
| P1                 | US- 2001/0026950 A1   |   | 10/04/2001                     | Sunakawa et al.                                    |   |
| Q1                 | US- 2002/0028314 A1   |   | 03/07/2002                     | Tischler et al.                                    |   |
| R1                 | US- 2002/0030194 A1   |   | 03/14/2002                     | Camras et al.                                      |   |
| S1                 | US- 2003/0190770 A1   |   | 10/09/2003                     | Yeom et al.  |   |

**FOREIGN PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Foreign Patent Document  | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | T <sup>6</sup> |
|--------------------|-----------------------|--|--------------------------------|--|---|----------------|
|                    |                       | Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> ( <i>if known</i> ) |                                |  |   |                |
| T1                 | CN 1291795            |  | 04/18/2001                     | Guanglei Sci & Tech Co. Ltd.                       | English Abstract Only   |                |
| U1                 | CN 1379484            |  | 11/13/2002                     | Univ Qinghua                                       | English Abstract Only   |                |
| V1                 | CN 1469459            |  | 01/21/2004                     | Fudi Elect. Mat. Co. Ltd.                          | English Abstract Only   |                |
| W1                 | CN 1476046            |  | 02/18/2004                     | Shanghai Prec. Opt. Instr                          | English Abstract Only   |                |
| X1                 | CN 1476047            |  | 02/18/2004                     | Shanghai Prec. Opt. Instr                          | English Abstract Only   |                |
| Y1                 | EP 997445             |  | 05/03/2000                     | Corning Inc.                                       | English Abstract Only   |                |

|                    |                 |
|--------------------|-----------------|
| Examiner Signature | Date Considered |
|--------------------|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 13

**Complete if Known**

|                      |                |
|----------------------|----------------|
| Application Number   | 10/669,145     |
| Filing Date          | 09/23/2003     |
| First Named Inventor | Milan R. Kokta |
| Art Unit             | 2828           |
| Examiner Name        | James Vannucci |

Attorney Docket Number 1075-BI3918-CIP

**U. S. PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|--------------------|-----------------------|--|--------------------------------|--|---|
|                    |                       | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
| A2                 | US- 2003/0213950 A1   |  | 11/20/2003                     | Hwang  |   |
| B2                 | US- 2004/0063236 A1   |  | 04/01/2004                     | Kwak et al.  |   |
| C2                 | US- 2004/0089220 A1   |  | 05/13/2004                     | Kokta et al.                                       |   |
| D2                 | US-                   |  |                                |  |   |
| E2                 | US-                   |  |                                |  |   |
| F2                 | US-                   |  |                                |  |   |
| G2                 | US-                   |  |                                |  |   |
| H2                 | US-                   |  |                                |  |   |
| I2                 | US-                   |  |                                |  |   |
| J2                 | US-                   |  |                                |  |   |
| K2                 | US-                   |  |                                |  |   |
| L2                 | US-                   |  |                                |  |   |
| M2                 | US-                   |  |                                |  |   |
| N2                 | US-                   |  |                                |  |   |
| O2                 | US-                   |  |                                |  |   |
| P2                 | US-                   |  |                                |  |   |
| Q2                 | US-                   |  |                                |  |   |
| R2                 | US-                   |  |                                |  |   |
| S2                 | US-                   |  |                                |  |   |

**FOREIGN PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Foreign Patent Document   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | T <sup>6</sup> |
|--------------------|-----------------------|---|--------------------------------|--|---|----------------|
|                    |                       | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) |                                |  |   |                |
| T2                 | EP 1298709            |   | 04/02/2003                     | NGK Insulators Ltd.                                | English Abstract Only   |                |
| U2                 | EP 1394867            |   | 03/03/2004                     | Samsung Elect. Co. Ltd.                            | English Abstract Only   |                |
| V2                 | JP 53-043481          |   | 04/19/1978                     | Matsushita Elec Ind. Co. Ltd.                      | English Abstract Only   |                |
| W2                 | JP 79-026873          |   | 09/06/1979                     | Nippon Elect. Co.                                  | English Abstract Only   |                |
| X2                 | JP 58-090736          |   | 05/30/1983                     | Tokyo Shibaura Elect. Co                           | English Abstract Only   |                |
| Y2                 | JP 61-142759          |   | 06/30/1986                     | NGK Spark Plug Co. Ltd.                            | English Abstract Only   |                |

|                    |  |                 |
|--------------------|--|-----------------|
| Examiner Signature |  | Date Considered |
|--------------------|--|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 3 of 13

**Complete if Known**

|                      |                |
|----------------------|----------------|
| Application Number   | 10/669,145     |
| Filing Date          | 09/23/2003     |
| First Named Inventor | Milan R. Kokta |
| Art Unit             | 2828           |
| Examiner Name        | James Vannucci |

Attorney Docket Number 1075-BI3918-CIP

**U. S. PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|--------------------|-----------------------|--|--------------------------------|--|---|
|                    |                       | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
| A3                 | US-                   |  |                                |  |   |
| B3                 | US-                   |  |                                |  |   |
| C3                 | US-                   |  |                                |  |   |
| D3                 | US-                   |  |                                |  |   |
| E3                 | US-                   |  |                                |  |   |
| F3                 | US-                   |  |                                |  |   |
| G3                 | US-                   |  |                                |  |   |
| H3                 | US-                   |  |                                |  |   |
| I3                 | US-                   |  |                                |  |   |
| J3                 | US-                   |  |                                |  |   |
| K3                 | US-                   |  |                                |  |   |
| L3                 | US-                   |  |                                |  |   |
| M3                 | US-                   |  |                                |  |   |
| N3                 | US-                   |  |                                |  |   |
| O3                 | US-                   |  |                                |  |   |
| P3                 | US-                   |  |                                |  |   |
| Q3                 | US-                   |  |                                |  |   |
| R3                 | US-                   |  |                                |  |   |
| S3                 | US-                   |  |                                |  |   |

**FOREIGN PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Foreign Patent Document   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | T <sup>6</sup> |
|--------------------|-----------------------|---|--------------------------------|--|---|----------------|
|                    |                       | Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known) |                                |  |   |                |
| T3                 | JP 62-123059          |   | 06/04/1987                     | Narumi Seito KK                                    | English Abstract Only   |                |
| U3                 | JP 7-235692           |   | 09/05/1995                     | Sony Corp.   | English Abstract Only   |                |
| V3                 | JP 8-040797           |   | 02/13/1996                     | Kyocera Corp.                                      | English Abstract Only   |                |
| W3                 | JP 8-083802           |   | 03/26/1996                     | Shingijutsu Kigyodan                               | English Abstract Only   |                |
| X3                 | JP 8-095233           |   | 04/12/1996                     | Tono Seiki YG                                      | English Abstract Only   |                |
| Y3                 | JP 9-129651           |   | 05/16/1997                     | Hewlett-Packard Co.                                | English Abstract Only   |                |

|                    |  |                 |
|--------------------|--|-----------------|
| Examiner Signature |  | Date Considered |
|--------------------|--|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 4 of 13

**Complete if Known**

|                      |                |
|----------------------|----------------|
| Application Number   | 10/669,145     |
| Filing Date          | 09/23/2003     |
| First Named Inventor | Milan R. Kokta |
| Art Unit             | 2828           |
| Examiner Name        | James Vannucci |

Attorney Docket Number 1075-BI3918-CIP

**U. S. PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|--------------------|-----------------------|--|--------------------------------|--|---|
|                    |                       | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
| A4                 | US-                   |  |                                |  |   |
| B4                 | US-                   |  |                                |  |   |
| C4                 | US-                   |  |                                |  |   |
| D4                 | US-                   |  |                                |  |   |
| E4                 | US-                   |  |                                |  |   |
| F4                 | US-                   |  |                                |  |   |
| G4                 | US-                   |  |                                |  |   |
| H4                 | US-                   |  |                                |  |   |
| I4                 | US-                   |  |                                |  |   |
| J4                 | US-                   |  |                                |  |   |
| K4                 | US-                   |  |                                |  |   |
| L4                 | US-                   |  |                                |  |   |
| M4                 | US-                   |  |                                |  |   |
| N4                 | US-                   |  |                                |  |   |
| O4                 | US-                   |  |                                |  |   |
| P4                 | US-                   |  |                                |  |   |
| Q4                 | US-                   |  |                                |  |   |
| R4                 | US-                   |  |                                |  |   |
| S4                 | US-                   |  |                                |  |   |

**FOREIGN PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Foreign Patent Document   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | T <sup>6</sup> |
|--------------------|-----------------------|---|--------------------------------|--|---|----------------|
|                    |                       | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) |                                |  |   |                |
| T4                 | JP 9-129928           |   | 05/16/1997                     | Toshiba KK   | English Abstract Only   |                |
| U4                 | JP 11-195813          |   | 07/21/1999                     | Toshiba Denshi Eng. KK                             | English Abstract Only   |                |
| V4                 | JP 11-235659          |   | 08/31/1999                     | Ricoh KK   | English Abstract Only   |                |
| W4                 | JP 11-274559          |   | 10/08/1999                     | Sanyo Elect. Co. Ltd.                              | English Abstract Only   |                |
| X4                 | JP 2000-228367        |   | 08/15/2000                     | Samsung Elect. Co. Ltd.                            | English Abstract Only   |                |
| Y4                 | JP 2000-331940        |   | 11/30/2000                     | Sony Corp.   | English Abstract Only   |                |

|                    |  |                 |
|--------------------|--|-----------------|
| Examiner Signature |  | Date Considered |
|--------------------|--|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 5 of 13

**Complete if Known**

|                      |                |
|----------------------|----------------|
| Application Number   | 10/669,145     |
| Filing Date          | 09/23/2003     |
| First Named Inventor | Milan R. Kokta |
| Art Unit             | 2828           |
| Examiner Name        | James Vannucci |

Attorney Docket Number 1075-BI3918-CIP

**U. S. PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|--------------------|-----------------------|--|--------------------------------|--|---|
|                    |                       | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
| A5                 | US-                   |  |                                |  |   |
| B5                 | US-                   |  |                                |  |   |
| C5                 | US-                   |  |                                |  |   |
| D5                 | US-                   |  |                                |  |   |
| E5                 | US-                   |  |                                |  |   |
| F5                 | US-                   |  |                                |  |   |
| G5                 | US-                   |  |                                |  |   |
| H5                 | US-                   |  |                                |  |   |
| I5                 | US-                   |  |                                |  |   |
| J5                 | US-                   |  |                                |  |   |
| K5                 | US-                   |  |                                |  |   |
| L5                 | US-                   |  |                                |  |   |
| M5                 | US-                   |  |                                |  |   |
| N5                 | US-                   |  |                                |  |   |
| O5                 | US-                   |  |                                |  |   |
| P5                 | US-                   |  |                                |  |   |
| Q5                 | US-                   |  |                                |  |   |
| R5                 | US-                   |  |                                |  |   |
| S5                 | US-                   |  |                                |  |   |

**FOREIGN PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Foreign Patent Document   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | T <sup>6</sup> |
|--------------------|-----------------------|---|--------------------------------|--|---|----------------|
|                    |                       | Country Code <sup>3</sup> ~Number <sup>4</sup> ~Kind Code <sup>5</sup> (if known) |                                |  |   |                |
| T5                 | JP 2001-010898        |   | 01/16/2001                     | NEC Corp.  | English Abstract Only   |                |
| U5                 | JP 2001-198808        |   | 07/24/2001                     | Morioka Seiko Kogyo KK                             | English Abstract Only   |                |
| V5                 | JP 2001-220295        |   | 08/14/2001                     | Namiki Seimitsu Hoseki KK                          | English Abstract Only   |                |
| W5                 | JP 2001-253800        |   | 09/18/2001                     | Namiki Seimitsu Hoseki KK                          | English Abstract Only   |                |
| X5                 | JP 2002-012856        |   | 01/15/2002                     | Neos KK  | English Abstract Only   |                |
| Y5                 | JP 2002-050577        |   | 02/15/2002                     | Namiki Seimitsu Hoseki KK                          | English Abstract Only   |                |

|                    |  |                 |
|--------------------|--|-----------------|
| Examiner Signature |  | Date Considered |
|--------------------|--|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 6 of 13

**Complete if Known**

|                      |                |
|----------------------|----------------|
| Application Number   | 10/669,145     |
| Filing Date          | 09/23/2003     |
| First Named Inventor | Milan R. Kokta |
| Art Unit             | 2828           |
| Examiner Name        | James Vannucci |

Attorney Docket Number 1075-BI3918-CIP

**U. S. PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|--------------------|-----------------------|--|--------------------------------|--|---|
|                    |                       | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
| A6                 | US-                   |  |                                |  |   |
| B6                 | US-                   |  |                                |  |   |
| C6                 | US-                   |  |                                |  |   |
| D6                 | US-                   |  |                                |  |   |
| E6                 | US-                   |  |                                |  |   |
| F6                 | US-                   |  |                                |  |   |
| G6                 | US-                   |  |                                |  |   |
| H6                 | US-                   |  |                                |  |   |
| I6                 | US-                   |  |                                |  |   |
| J6                 | US-                   |  |                                |  |   |
| K6                 | US-                   |  |                                |  |   |
| L6                 | US-                   |  |                                |  |   |
| M6                 | US-                   |  |                                |  |   |
| N6                 | US-                   |  |                                |  |   |
| O6                 | US-                   |  |                                |  |   |
| P6                 | US-                   |  |                                |  |   |
| Q6                 | US-                   |  |                                |  |   |
| R6                 | US-                   |  |                                |  |   |
| S6                 | US-                   |  |                                |  |   |

**FOREIGN PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Foreign Patent Document   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | T <sup>6</sup> |
|--------------------|-----------------------|---|--------------------------------|--|---|----------------|
|                    |                       | Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known) |                                |  |   |                |
| T6                 | JP 2002-158377        |   | 05/31/2002                     | Matsushita Denki Sangyo KK                         | English Abstract Only   |                |
| U6                 | JP 2002-255694        |   | 09/11/2002                     | Kyocera Corp.                                      | English Abstract Only   |                |
| V6                 | JP 2002-353425        |   | 12/06/2002                     | Kyocera Corp.                                      | English Abstract Only   |                |
| W6                 | JP 2003-045829        |   | 02/14/2003                     | Hitachi Chem Co. Ltd.                              | English Abstract Only   |                |
| X6                 | JP 2003-113000        |   | 04/18/2003                     | Hitachi Cable Ltd.                                 | English Abstract Only   |                |
| Y6                 | JP 2003-124151        |   | 04/25/2003                     | Disco KK   | English Abstract Only   |                |

|                    |  |                 |
|--------------------|--|-----------------|
| Examiner Signature |  | Date Considered |
|--------------------|--|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 7 of 13

**Complete if Known**

|                      |                |
|----------------------|----------------|
| Application Number   | 10/669,145     |
| Filing Date          | 09/23/2003     |
| First Named Inventor | Milan R. Kokta |
| Art Unit             | 2828           |
| Examiner Name        | James Vannucci |

Attorney Docket Number 1075-BI3918-CIP

**U. S. PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|--------------------|-----------------------|--|--------------------------------|--|---|
|                    |                       | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
| A7                 | US-                   |  |                                |  |   |
| B7                 | US-                   |  |                                |  |   |
| C7                 | US-                   |  |                                |  |   |
| D7                 | US-                   |  |                                |  |   |
| E7                 | US-                   |  |                                |  |   |
| F7                 | US-                   |  |                                |  |   |
| G7                 | US-                   |  |                                |  |   |
| H7                 | US-                   |  |                                |  |   |
| I7                 | US-                   |  |                                |  |   |
| J7                 | US-                   |  |                                |  |   |
| K7                 | US-                   |  |                                |  |   |
| L7                 | US-                   |  |                                |  |   |
| M7                 | US-                   |  |                                |  |   |
| N7                 | US-                   |  |                                |  |   |
| O7                 | US-                   |  |                                |  |   |
| P7                 | US-                   |  |                                |  |   |
| Q7                 | US-                   |  |                                |  |   |
| R7                 | US-                   |  |                                |  |   |
| S7                 | US-                   |  |                                |  |   |

**FOREIGN PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Foreign Patent Document   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | T <sup>6</sup> |
|--------------------|-----------------------|---|--------------------------------|--|---|----------------|
|                    |                       | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) |                                |  |   |                |
| T7                 | JP 2003-165042        |   | 06/10/2003                     | Okamoto Kosaku Kikai Scisakusho KK                 | English Abstract Only   |                |
| U7                 | JP 2003-273022        |   | 09/26/2003                     | Namiki Seimitsu Hoseki KK                          | English Abstract Only   |                |
| V7                 | JP 2003-320521        |   | 11/11/2003                     | Tokyo Tungsten KK                                  | English Abstract Only   |                |
| W7                 | JP 2003-334754        |   | 11/25/2003                     | Nippon Microcoating KK                             | English Abstract Only   |                |
| X7                 | JP 2003-338638        |   | 11/28/2003                     | Nichia Kagaku Kogyo KK                             | English Abstract Only   |                |
| Y7                 | JP 2004-006867        |   | 01/08/2004                     | Matsushita Denki Sagyo KK                          | English Abstract Only   |                |

|                    |  |                 |
|--------------------|--|-----------------|
| Examiner Signature |  | Date Considered |
|--------------------|--|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 8 of 13

**Complete if Known**

|                      |                |
|----------------------|----------------|
| Application Number   | 10/669,145     |
| Filing Date          | 09/23/2003     |
| First Named Inventor | Milan R. Kokta |
| Art Unit             | 2828           |
| Examiner Name        | James Vannucci |

Attorney Docket Number 1075-BI3918-CIP

**U. S. PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|--------------------|-----------------------|--|--------------------------------|--|---|
|                    |                       | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
| A8                 | US-                   |  |                                |  |   |
| B8                 | US-                   |  |                                |  |   |
| C8                 | US-                   |  |                                |  |   |
| D8                 | US-                   |  |                                |  |   |
| E8                 | US-                   |  |                                |  |   |
| F8                 | US-                   |  |                                |  |   |
| G8                 | US-                   |  |                                |  |   |
| H8                 | US-                   |  |                                |  |   |
| I8                 | US-                   |  |                                |  |   |
| J8                 | US-                   |  |                                |  |   |
| K8                 | US-                   |  |                                |  |   |
| L8                 | US-                   |  |                                |  |   |
| M8                 | US-                   |  |                                |  |   |
| N8                 | US-                   |  |                                |  |   |
| O8                 | US-                   |  |                                |  |   |
| P8                 | US-                   |  |                                |  |   |
| Q8                 | US-                   |  |                                |  |   |
| R8                 | US-                   |  |                                |  |   |
| S8                 | US-                   |  |                                |  |   |

**FOREIGN PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Foreign Patent Document   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | T <sup>6</sup> |
|--------------------|-----------------------|---|--------------------------------|--|---|----------------|
|                    |                       | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) |                                |  |   |                |
| T8                 | JP 2004-014691        |   | 01/15/2004                     | Mitsubishi Gas Chem Co Inc.                        | English Abstract Only   |                |
| U8                 | JP 2004-140394        |   | 05/13/2004                     | Nissan Chem Ind. Ltd.                              | English Abstract Only   |                |
| V8                 | KR 2002-043128        |   | 06/08/2002                     | Ulsan College                                      | English Abstract Only   |                |
| W8                 | SU 1781271            |   | 12/15/1992                     | Krasny Poly (Kypo)                                 | English Abstract Only   |                |
| X8                 | TW 550836             |   | 09/01/2003                     | Ind. Tech. Res. Inst.                              | English Abstract Only   |                |
| Y8                 | WO 2000/68332         |   | 11/16/2000                     | MPM Ltd.   | English Abstract Only   |                |

|                    |  |                 |
|--------------------|--|-----------------|
| Examiner Signature |  | Date Considered |
|--------------------|--|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**Complete if Known****INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
(Use as many sheets as necessary)

Sheet 9 of 13

|                      |                |
|----------------------|----------------|
| Application Number   | 10/669,145     |
| Filing Date          | 09/23/2003     |
| First Named Inventor | Milan R. Kokta |
| Art Unit             | 2828           |
| Examiner Name        | James Vannucci |

Attorney Docket Number 1075-BI3918-CIP

**U. S. PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Document Number                                   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|--------------------|-----------------------|---|--------------------------------|--|---|
|                    |                       | Number-Kind Code <sup>2</sup> ( <i>if known</i> ) |                                |  |   |
|                    | A9                    | US-   |                                |  |   |
|                    | B9                    | US-   |                                |  |   |
|                    | C9                    | US-   |                                |  |   |
|                    | D9                    | US-   |                                |  |   |
|                    | E9                    | US-   |                                |  |   |
|                    | F9                    | US-   |                                |  |   |
|                    | G9                    | US-   |                                |  |   |
|                    | H9                    | US-   |                                |  |   |
|                    | I9                    | US-   |                                |  |   |
|                    | J9                    | US-   |                                |  |   |
|                    | K9                    | US-   |                                |  |   |
|                    | L9                    | US-   |                                |  |   |
|                    | M9                    | US-   |                                |  |   |
|                    | N9                    | US-   |                                |  |   |
|                    | O9                    | US-   |                                |  |   |
|                    | P9                    | US-   |                                |  |   |
|                    | Q9                    | US-   |                                |  |   |
|                    | R9                    | US-   |                                |  |   |
|                    | S9                    | US-   |                                |  |   |

**FOREIGN PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Foreign Patent Document  | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | T <sup>6</sup> |
|--------------------|-----------------------|--|--------------------------------|--|---|----------------|
|                    |                       | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> ( <i>if known</i> ) |                                |  |   |                |
|                    | T9                    | WO 2002/92674  | 11/21/2002                     | US Sec of Navy                                     | English Abstract Only   |                |
|                    | U9                    | WO 2004/33769  | 04/22/2004                     | Unisearch Ltd.                                     | English Abstract Only   |                |
|                    | V9                    |  |                                |  | English Abstract Only   |                |
|                    | W9                    |  |                                |  | English Abstract Only   |                |
|                    | X9                    |  |                                |  | English Abstract Only   |                |
|                    | Y9                    |  |                                |  | English Abstract Only   |                |

|                    |                 |
|--------------------|-----------------|
| Examiner Signature | Date Considered |
|--------------------|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

10

of

13

**Complete if Known**

|                               |                 |
|-------------------------------|-----------------|
| <b>Application Number</b>     | 10/669,145      |
| <b>Filing Date</b>            | 09/23/2003      |
| <b>First Named Inventor</b>   | Milan R. Kokta  |
| <b>Art Unit</b>               | 2828            |
| <b>Examiner Name</b>          | James Vannucci  |
| <b>Attorney Docket Number</b> | 1075-BI3918-CIP |

**NON PATENT LITERATURE DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
|--------------------|-----------------------|---|----------------|
|                    | A10                   | Aeschlimann, R. et al., "The Chemical Polishing of Magnesium Aluminate Spinel in Pyrophosphoric Acid", MAT. RES. BULL., Vol. 5, pgs 167-172, 1970.  |                |
|                    | B10                   | Dwikusuma, F., "Study on Sapphire Surface Preparation for III-Nitride Heteroepitaxial Growth by Chemical Treatments", JOURNAL FOR ELECTROCHEMICAL SOC., Nov. 2002, 30 pgs.  |                |
|                    | C10                   | Kim, S. et al., "Stress Relaxation in Thick-Film GaN Grown by Hydride Vapor Phase Epitaxy on Sapphire and Spinel Substrates as Studied by Photoluminescence and Raman Spectroscopy", J. OF THE KR PHYS SOC., Vol. 34, No. 2, Feb. 1999, pgs 163-167.            |                |
|                    | D10                   | Kurobe, Toshiji, et al., "Magnetic Field-Assisted Lapping", BULL. JAPAN SOC. OF PREC. ENGG., Vol. 20, No. 1, March 1986, pgs 49-51.   |                |
|                    | E10                   | Libowitzky, E., "Optical Anisotropy in the Spinel Group: a Polishing Effect", EUR. J. MINERAL., Vol. 6, 1994, pgs. 187-194.   |                |
|                    | F10                   | Reisman, A., et al., "The Chemical Polishing of Sapphire and MgAl Spinel", J. ELECTROCHEM. SOC.: SOLID STATE SCIENCE, Vol. 118, No. 10, October 1971, pgs 1653-1657.  |                |
|                    | G10                   | Richter, F., et al., "Herstellung und Aurichtung Von MgAl-Spinell-Substraten fur die Halbleiterpitaxie", KRISTALL UND TECHNIK, Vol. 10, No. 3, 1975, pgs 33-348.  |                |
|                    | H10                   | Robinson, P., et al., "The Chemical Polishing of Sapphire and Spinel", RCA REVIEW, Vol. 34, December 1973, pgs 616-629.   |                |
|                    | I10                   | Roy, D., et al., "Spinel, Where did it go?", SPIE Vol. 3134, pgs 307-316.   |                |
|                    | J10                   | Wang, C., et al., "Growth and Characterization of Spinel Single Crystal for Substrate Use in Integrated Electronics", J. APPLIED PHYSICS, Vol. 40, No. 9, August 1969, pgs 3433-3444.   |                |

|                    |                 |
|--------------------|-----------------|
| Examiner Signature | Date Considered |
|--------------------|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|   |    |    |    |                             |                 |
|---|----|----|----|-----------------------------|-----------------|
| <p>Substitute for form 1449/PTO</p> <p><b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b></p> <p><i>(Use as many sheets as necessary)</i></p> |    |    |    | <b>Complete if Known</b>    |                 |
|   |    |    |    | <b>Application Number</b>   | 10/669,145      |
|   |    |    |    | <b>Filing Date</b>          | 09/23/2003      |
|   |    |    |    | <b>First Named Inventor</b> | Milan R. Kokta  |
|   |    |    |    | <b>Art Unit</b>             | 2828            |
|   |    |    |    | <b>Examiner Name</b>        | James Vannucci  |
| Sheet   | 11 | of | 13 | Attorney Docket Number      | 1075-BI3918-CIP |

| <b>NON PATENT LITERATURE DOCUMENTS</b> |                       |   |  |                |
|--|-----------------------|---|--|----------------|
| Examiner Initials*                     | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |  | T <sup>2</sup> |
|  | A11                   | Yanina, S., et al., "Moving Steps and Crystal Defects on Spinel Surfaces", MAT. RES. SOC. SYMP., Vol. 620, 2000, pgs M9.4.1-M9.4.6.   |  |                |
|  | B11                   | Byun, D., et al., "Reactive ion (N2+) Beam Pretreatment of Sapphire for GaN Growth", THIN SOLID FILMS, Vol. 326, 1998, pgs 151-153.   |  |                |
|  | C11                   | Byun, D., et al., "New Pretreatment Method of Sapphire for GaN Deposition", PHYS. STAT. SOL., Vol. 176, 1999, pgs 643-648.  |  |                |
|  | D11                   | Sung, Y., et al., "High Rate Etching of Sapphire Wafer Using Cl2BCl3Ar Inductively Coupled Plasmas", MAT. SCI. & ENG.: SOLID STATE MAT, Vol. B82, No. 1-3 2000, pgs 50-52. (ABSTRACT ONLY)  |  |                |
|  | E11                   | Wang, X., et al., "Chemical Polishing of Sapphire for Growth of GaN", CHINESE JOURNAL OF SEMICONDUCTORS, Vol. 18, No. 11, pgs 867-871, 1997. (ABSTRACT ONLY)  |  |                |
|  | F11                   | Lee, J., et al., "Scribing and Cutting a Blue LED Wafer Using a Q-Switched Nd:YAG Laser", APPLIED PHYSICS, Vol. 70, No. 5, pgs 561-564, 2000. (ABSTRACT ONLY)   |  |                |
|  | G11                   | Kalinski, Z., "Preparation of Sapphire Substrates for Gas Phase GaN Epitaxial Processes", KRISTAL UND TECHNIK, Vol. 12, No. 10, pgs 1105-1110, 1977. (ABSTRACT ONLY)  |  |                |
|  | H11                   | Jeong, C., et al., "Sapphire Etching with BCl3/HBr/Ar Plasma", SURFACE & COATINGS TECHNOLOGY, Vol. 171, No. 1-3, 2003, pgs 280-284. (ABSTRACT ONLY)   |  |                |
|  | I11                   | Kalinski, Z., et al., "Structural Etching of Al2O3 Substrate Plates Applied in Gaseous Epitaxy of GaN Layers", ELEKTRONIKA, Vol. 18, No. 3, 1977, pgs 117-119. (ABSTRACT ONLY)  |  |                |
|  | J11                   | Lakew, B., et al., "High Tc Superconducting Bolometer on Chemically Etched 7 Micrometer Thick Sapphire", NASA, 1997, 21 pgs. (ABSTRACT ONLY)  |  |                |

|                    |  |                 |  |
|--------------------|--|-----------------|--|
| Examiner Signature |  | Date Considered |  |
|--------------------|--|-----------------|--|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|  |    |    |    |                          |                 |
|--|----|----|----|--------------------------|-----------------|
| Substitute for form 1449/PTO   |    |    |    | <b>Complete if Known</b> |                 |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><i>(Use as many sheets as necessary)</i> |    |    |    | Application Number       | 10/669,145      |
|  |    |    |    | Filing Date              | 09/23/2003      |
|  |    |    |    | First Named Inventor     | Milan R. Kokta  |
|  |    |    |    | Art Unit                 | 2828            |
|  |    |    |    | Examiner Name            | James Vannucci  |
| Sheet  | 12 | of | 13 | Attorney Docket Number   | 1075-BI3918-CIP |

**NON PATENT LITERATURE DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
|--------------------|-----------------------|---|----------------|
|                    | A12                   | Jeong, C., et al., "Dry Etching of Sapphiure Substrate for Device Separation in Chlorine-Based Inductively Coupled Plasmas", MAT. SCI. & ENG.: SOLID STATE MATERIALS, Vol. 93, No. 1-3, pgs 60-63, 2002. (ABSTRACT ONLY)  |                |
|                    | B12                   | Gu, E., et al., "Micromachining and Dicing of Sapphire, Gallium Nitride and Micro LED Devices with UV Copper Vapour Laser", THIN SOLID FILMS, Vol. 453-454, pgs 462-466, 2000. (ABSTRACT ONLY)  |                |
|                    | C12                   | Park, H., et al., "A Novel Process for the Generation of Pristine Saphire Surfaces", THIN SOLID FILMS, Vol. 422, No. 1-2, pgs 135-140, 2000. (ABSTRACT ONLY)  |                |
|                    | D12                   | Fenner, D., et al., "Ion Beam Nanosmoothing of Sapphire and Silicon Carbide Surfaces", SPIE, Vol. 4468, pgs 17-24, 2001. (ABSTRACT ONLY)  |                |
|                    | E12                   | Blecha, Z., et al., "On Fabrication of Sapphire Substrates (1102) for Epitaxy of Monocrystalline Silicon", JEMNA MECHANIKA A OPTIKA, Vol., 28, No. 12, pgs 249-351, 1983. (ABSTRACT ONLY)   |                |
|                    | F12                   | Duffy, M., et al., "Optical Characterization of Silicon and Sapphire Surfaces as related to SOS Discrete Device Performance", JOURNAL OF CRYSTAL GROWTH, Vol. 58, No. 1, pgs 19-36, 1982. (ABSTRACT ONLY)   |                |
|                    | G12                   | Ehman, M., et al., "Mechanical Preparation of Sapphire Single-Crystal Surfaces by Vibratory Techniques", METALLOGRAPHY, Vol. 9, No. 4, pgs 333-339, 1976. (ABSTRACT ONLY)   |                |
|                    | H12                   | Druminiski, M., et al., "Deposition of Epitaxial Films on Spinel and Sapphire. Influence of Substrate Preparation", SIEMENS FORSCHUNGS - UND ENTWICKLUNGSBERICHTE, Vol. 5, No. 3, pgs 139-145, 1976. (ABSTRACT ONLY)  |                |
|                    | I12                   | Cullen, G., "The Preparation and Properties of Chemically Vapor Deposited Silicon on Sapphire and Spinel", JOURNAL OF CRYSTAL GROWTH, Vol. 9, pgs 107-125, 1971. (ABSTRACT ONLY)  |                |
|                    | J12                   | Liu, L., et al., "Substrates for Gallium Nitride Epitaxy", MAT. SCI. & ENG. REPORTS, Vol. R37, No. 3, pgs 61-127, 2000. (ABSTRACT ONLY)   |                |

|                    |                 |
|--------------------|-----------------|
| Examiner Signature | Date Considered |
|--------------------|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|  |    |    |    |                             |                 |
|--|----|----|----|-----------------------------|-----------------|
| Substitute for form 1449/PTO   |    |    |    | <b>Complete if Known</b>    |                 |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br><i>(Use as many sheets as necessary)</i> |    |    |    | <b>Application Number</b>   | 10/669,145      |
|  |    |    |    | <b>Filing Date</b>          | 09/23/2003      |
|  |    |    |    | <b>First Named Inventor</b> | Milan R. Kokta  |
|  |    |    |    | <b>Art Unit</b>             | 2828            |
|  |    |    |    | <b>Examiner Name</b>        | James Vannucci  |
| Sheet  | 13 | of | 13 | Attorney Docket Number      | 1075-BI3918-CIP |

**NON PATENT LITERATURE DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
|--------------------|-----------------------|---|----------------|
|                    | A13                   | Khattak, C., et al., "Production of Sapphire Blanks and Substrates for Blue LEDs and LDs", MAT. RES. SOC. SYMP. - PROCEEDINGS, V. 743, pgs 219-224, 2002. (ABSTRACT ONLY)   |                |
|                    | B13                   | Gutsche, H., et al., "Polishing of Sapphire with Colloidal Silica", JOURNAL OF THE ELECTROCHEMICAL SOCIETY, Vol. 125, No. 1, 1978, pgs 136-138, 1978. (ABSTRACT ONLY)   |                |
|                    | C13                   | Duffy, M., et al., "Semiconductor Measurement Technology: Method to Determine the Quality of Sapphire, (NOTE) Final Report", RCA Labs, 1980, 77 pgs. (ABSTRACT ONLY)  |                |
|                    | D13                   | Duffy, M., et al., "Method to Determine Qulity of Sapphire, (NOTE) Interim Rept.", RCA Labs, 1975, 88 pgs. (ABSTRACT ONLY)  |                |
|                    | E13                   | Horie, S., et al., "Precision Grinding of Semiconductor - Related Materials", (JOURNAL) NEW DIAMOND, Vol. 20, No. 2, pgs 8-13, 2004. (ABSTRACT ONLY)  |                |
|                    | F13                   | Edgar, J., et al., "Substrates for Gallium Nitride Epitaxy", MAT. SCI. & ENG., PART R, Vol. R37, No. 3, pgs 61-127, 2002. (ABSTRACT ONLY)   |                |
|                    | G13                   | Author Unkown, "Specifications for Polished Monocrystalline Sapphire Substrates" 1996, Affiliation (Issuing Organization) SEMI Semiconductor Equipment & Materials International, USA. (Bibliographic Entry Only).  |                |
|                    | H13                   | Search Report for Technical Articles (Including various Abstracts of certain Identified References)   |                |
|                    | I13                   |   |                |
|                    | J13                   |   |                |

|                    |                 |
|--------------------|-----------------|
| Examiner Signature | Date Considered |
|--------------------|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.